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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/572,992

03/23/2006

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F-9013

9079

28107 7590 12/28/2009  
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EXAMINER

PIZIALI, ANDREW T

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

12/28/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/572,992	<b>Applicant(s)</b> ISHII ET AL.	
	<b>Examiner</b> Andrew T. Piziali	<b>Art Unit</b> 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-12 is/are pending in the application.
- 4a) Of the above claim(s) 7-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/23/06 & 4/17/09 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/13/2009</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/9/2009 has been entered.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 3,848,296 to Rudloff in view of USPN 3,873,411 to Drelich.

Rudloff discloses a regeneration method comprising the step of fibrillating a used fiber mass to separate the individual fibers (see entire document including column 1, lines 40-56 and column 2, lines 45-52).

Rudloff discloses that the invention relates to nonwoven materials (column 2, lines 45-52), but Rudloff does not appear to specifically disclose that the fiber mass is a nonwoven fabric. Drelich discloses that it is known in the art to recover fibers from nonwoven fabrics (see entire

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document including column 1, lines 11-17). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to recover and clean a used nonwoven fabric, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Rudloff discloses that gravity eliminates foreign bodies contained within the mass of fibers (column 1, lines 52-56), but Rudloff does not appear to mention a water washing treatment. Drelich discloses that it is known in the art to water wash a fiber mass, after removing the majority of foreign bodies, to obtain neutral pH, fluffy, and residue free fibers (see Example 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to subject the fibrillated individual fibers to a water washing step, as taught by Drelich, motivated by a desire to obtain neutral pH, fluffy, and residue free fibers.

Rudloff specifically discloses that the fiber material may be used to make nonwoven materials (column 2, lines 45-52), but Rudloff does not appear to specifically disclose using the fibrillated fibers to produce a nonwoven fabric. Drelich discloses that it is known in the fiber recovery art to use recovered fibers to produce nonwoven fabrics (column 1, lines 11-17, Example I, and Example XX). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the recovered fibers to make a nonwoven fabric, because the fibers are suitable for reuse and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding claim 3, the fibrillating is effected by an automatic fibrillating apparatus (see Figures and column 2, lines 4-33).

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4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 3,848,296 to Rudloff in view of USPN 3,873,411 to Drelich as applied to claims 1 and 3 above, and further in view of USPN 5,603,476 to Merk.

Rudloff does not appear to mention a chemical agent being adhered to the used fabric, but Merk discloses that it is known in the dust fabric art to adhere an activated carbon coating to a fabric to provide the fabric with an absorption characteristic (see entire document including column 2, lines 30-45). It would have been obvious to one having ordinary skill in the art at the time the invention was made to apply an activated carbon coating to the fabric, motivated by a desire to provide the fabric with an absorption characteristic.

5. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 3,848,296 to Rudloff in view of USPN 3,873,411 to Drelich as applied to claims 1 and 3 above, and further in view of USPN 6,010,785 to Kruszewski.

Rudloff discloses that the fiber mass may comprise any fibrous material, such as synthetic or natural fibrous material (column 2, lines 45-52), but Rudloff does not appear to specifically mention the use of PTFE fibers or glass fibers. Kruszewski discloses that it is known in the filter fabric art to mainly use PTFE fibers and to use glass fibers in a minor amount (see entire document including column 2, lines 16-48 and column 3, line 13 through column 4, line 7). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the used fabric from any suitable fibrous material, such as PTFE fibers and glass fibers, as taught by Kruszewski, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

***Response to Arguments***

6. Applicant's arguments filed 10/9/2009 have been fully considered but they are not persuasive.

The applicant asserts that the applied prior art fails to teach or suggest fibrillating the fibers to result in fibrillated individual fibers and then separating powder dust from the fibrillated individual fibers. Applicant's argument is not persuasive because Rudloff discloses a regeneration method comprising the step of fibrillating a used fiber mass to separate the individual fibers and Drelich discloses that it is known in the art to water wash a fiber mass, after removing the majority of foreign bodies, to obtain neutral pH, fluffy, and residue free fibers. It would have been obvious to one having ordinary skill in the art at the time the invention was made to subject the fibrillated individual fibers to a water washing step, as taught by Drelich, motivated by a desire to obtain neutral pH, fluffy, and residue free fibers.

It is noted that in the response filed 4/17/2009 the applicant asserted that “anything removed in Rudloff is at best a minor amount of naturally occurring matter (e.g. seeds).” Therefore, the water washing step taught by Drelich would separate the powder dust from the individual fibers. It is further noted that the current specification discloses that a powder dust separation treatment may be carried out by water washing (paragraph bridging pages 22 and 23).

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***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on (571) 272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew T Piziali/  
Primary Examiner, Art Unit 1794